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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/671,721	09/29/2003	Yuji Imaizumi	045070-5036	9270

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EXAMINER

BEISNER, WILLIAM H

ART UNIT	PAPER NUMBER
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1744

DATE MAILED: 08/23/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

10/671,721

Applicant(s)

IMAZUMI ET AL.

Examiner

William H. Beisner

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 18 May 2005.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-39 is/are pending in the application.
- 4a) Of the above claim(s) 1-15 and 21-23 is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 16-20 and 24-39 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 29 September 2003 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
- 1) ☒ Certified copies of the priority documents have been received.
 - 2) ☐ Certified copies of the priority documents have been received in Application No. _____.
 - 3) ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☒ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date 1/9/04.
- 4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____.
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: _____.

DETAILED ACTION

Election/Restrictions

1. Applicant's election without traverse of Group III, Claims 16-20, in the reply filed on 5/18/2005 is acknowledged.
2. Claims 1-15 and 21-23 are withdrawn from further consideration pursuant to 37 CFR 1.142(b) as being drawn to a nonelected invention, there being no allowable generic or linking claim. Election was made **without** traverse in the reply filed on 5/18/2005.

Priority

3. Receipt is acknowledged of papers submitted under 35 U.S.C. 119(a)-(d), which papers have been placed of record in the file.

Information Disclosure Statement

4. The information disclosure statement filed 01/09/2004 has been considered and made of record.

Specification

5. The abstract of the disclosure is objected to because of the use of legal phraseology. Correction is required. See MPEP § 608.01(b).
6. Applicant is reminded of the proper language and format for an abstract of the disclosure.

The abstract should be in narrative form and generally limited to a single paragraph on a separate sheet within the range of 50 to 150 words. It is important that the abstract not exceed

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150 words in length since the space provided for the abstract on the computer tape used by the printer is limited. **The form and legal phraseology often used in patent claims, such as "means" and "said," should be avoided.** The abstract should describe the disclosure sufficiently to assist readers in deciding whether there is a need for consulting the full patent text for details.

The language should be clear and concise and should not repeat information given in the title. It should avoid using phrases which can be implied, such as, "The disclosure concerns," "The disclosure defined by this invention," "The disclosure describes," etc.

Claim Rejections - 35 USC § 112

7. The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

8. Claim 19 is rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

In claim 19, "said noted cell" lacks antecedent basis. Note claim 16 has been amended to remove reference "a noted cell".

Claim Rejections - 35 USC § 102

9. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

10. Claims 16-20 and 24-39 are rejected under 35 U.S.C. 102(e) as being anticipated by Yao et al.(US 2003/0100059).

With respect to claim 16, the reference of Yao et al. discloses an intracellular measuring apparatus for measuring intracellular reactions wherein the apparatus includes a specifying means in which the intensity of the first light emitted from the specimen in accordance with the presence of a stated protein is detected to specify a noted region of the specimen based on the first light and a selection means in which the intensity of second light emitted from the specimen in accordance with intracellular reactions induced by the protein is detected, of the detected intensity of the second light, the intensity of the second light emitted from the noted region. Specifically Example 1 discloses the use of a real-time fluorescence imaging device that is capable of distinguishing a cell with the “stated protein” from cells that do not have the “stated protein” (See Figure 2c), that is specifying a first light (GFP emitted light) associated with transfected cells and identifying the transfected cells (a noted region). The imaging device also determines the intensity of a second light emitted by the transfected cells as evidenced by Figure 2c which plots the intensity of second light of transfected cells in addition of second light relative to non-transfected cells.

With respect to claims 17, 26 and 31, the system inherently includes a chemical-substance introduction means for introducing substances which target the “stated protein”. If not, the norepinephrine and forskolin required of Example 1 could not have been added to the cell culture.

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With respect to claims 18, 27 and 33, the second light intensity is sampled over constant time as evidenced by the plot generated in Figure 2C.

With respect to claims 19, 28 and 34, the system is structurally capable of detecting the intensity of a first light emitted by a fluorescent protein expressed together with the “stated protein” and a second light emitted from a fluorescent probe as evidenced by the GFP and Fura-2 of Example 1.

With respect to claims 20, 29, 36 and 39, the real-time fluorescence imaging device of Example 1 inherently includes the claimed detection means. If not, the plot of Figure 2C would not be capable of being generated. Specifically, the points when reagents were added relative to time.

With respect to claims 24 and 25, the device is capable of noting the location of transfected cells (GFP positive cells) relative to non-transfected cells as evidenced in Figures 2A and 2B.

With respect to claim 30, the device is structurally capable of determining which cells within a colony or a plurality of colonies include the stated protein.

With respect to claims 32, 35, 37 and 38, the device is structurally capable of distinguishing GFP positive cells relative the whole cell population and limiting the second light intensity to the GFP positive cells as evidenced by the GFP positive plot in Figure 2C.

Conclusion

11. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

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The reference of Tsien et al.(US 6,342,379) is cited as prior art that pertains the use of GFP and oxonol emissions during the analysis of intracellular detection assays. The reference does not include a structure that corresponds to the claimed selection means.

12. Any inquiry concerning this communication or earlier communications from the examiner should be directed to William H. Beisner whose telephone number is 571-272-1269. The examiner can normally be reached on Tues. to Fri. and alt. Mon. from 6:15am to 3:45pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, John Kim can be reached on 571-272-1142. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).



William H. Beisner
Primary Examiner
Art Unit 1744

WHB